MAC Access Table Configuration Commands

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Chapter 1 MAC Access Table Configuration Commands

1.1 MAC Access Table Configuration Commands

The MAC access list configuration commands include:

- mac access-list
- permit
- deny
- mac access-group

1.1.1 mac access-list

Syntax

To add or cancel a MAC access list, run the following command.

[no] mac access-list name

Parameters

| Parameters | Description |
|---------------------------------------|-------------|
| name MAC: Name of the MAC access list | |

Default Value

When there is a rule in the access list, an item- deny any any- will be added to the end by default and the item will not show.

Command Mode

Global configuration mode

Usage Guidelines

This command is run in global configuration mode.

Example

The following example shows how to configure a mac-acl MAC access list.

Switch-config# mac access-list mac-acl Switch-config-macl#

1.1.2 permit

Syntax

To add or cancel an item to or from the MAC access list, run the following command. To return to the default setting, use the no form of this command.

[no] permit {any | host src-mac-addr | src-mac-addr src-mac-mask } [any | host dst-mac-addr | dst-mac-addr dst-mac-mask][{arp | ip } [[any | src-ip-addr] [any | dst-ip-addr]] | ethertype]

Parameters

| Parameters | Description | Value Range |
|--------------|---------------------------------------|---------------|
| any | Any value | _ |
| host | Chassis | _ |
| src-mac-addr | Stands for source MAC address | н.н.н |
| src-mac-mask | Stands for source mac mask | н.н.н |
| dst-mac-addr | Stands for destination MAC address | н.н.н |
| dst-mac-mask | Stands for destination mac mask | н.н,н |
| arp | Stands for matched arp packets | _ |
| lp | Stands for matched IP packets | _ |
| src-ip-addr | Stands for source IP address | A.B.C.D |
| dst-ip-addr | Stands for the destination IP address | A.B.C.D |
| ethertype | Type of the matched Ethernet packet | 0x0600-0xFFFF |

Default Value

If no entry is configured, the command cannot be functioned under the interface; if the entry is configured and there is no **permit any any**, a **deny any any** will be added automatically. That is to say, flow without matching any item will be dropped.

Usage Guidelines

This command is running in MAC access list configuration mode.

Example

The following example shows how to set the MAC address of a host to 1234.5678.abcd.

Switch_config# mac access-list al-test

Switch-config-macl#permit host 1234.5678.abcd any

1.1.3 deny

Syntax

To add an item rejected by the MAC access list, run the following command. To return to the default setting, use the no form of this command.

[no] deny {any | host src-mac-addr | src-mac-addr src-mac-mask } [any | host dst-mac-addr | dst-mac-addr | dst-mac-mask][{arp | ip } [[any | src-ip-addr] [any | dst-ip-addr]] | ethertype]

Parameters

| Parameters | Description | Value Range |
|--------------|---------------------------------------|---------------|
| any | Any value | _ |
| host | Chassis | _ |
| src-mac-addr | Stands for source MAC address | н.н.н |
| src-mac-mask | Stands for source mac mask | н.н.н |
| dst-mac-addr | Stands for destination MAC address | н.н.н |
| dst-mac-mask | Stands for destination mac mask | Н.Н,Н |
| arp | Stands for matched arp packets | _ |
| ip | Stands for matched ip packets | |
| src-ip-addr | Stands for source IP address | A.B.C.D |
| dst-ip-addr | Stands for the destination IP address | A.B.C.D |
| ethertype | Type of the matched Ethernet packet | 0x0600-0xFFFF |

Default Value

If no entry is configured, the command cannot be functioned under the interface; if the entry is configured and there is no permit any any, a deny any any will be added automatically. That is to say, flow without matching any item will be dropped.

Command Mode

This command is running in MAC access list configuration mode.

Example

The following example shows how to reject a host whose MAC address is 1234.5678.abcd.

Switch_config# mac access-list al-test

Switch-config-macl#deny host 1234.5678.abcd any

1.1.4 mac access-group

Syntax

To apply the established MAC access list to an interface or in the global mode or cancel a MAC access list which is already applied to an interface or in the global mode, run the previous command.

Global:

mac access-group name [egress | vlan {word | add word | remove word}]

[no] mac access-group name [egress | vlan]

Port:

[no] mac access-group name [egress]

Parameters

| Parameters | Description |
|------------|--|
| name | MAC: Name of the MAC access list |
| egress | THE ACCESS LIST IS APPLIED IN EGRESS. |
| vlan | THE ACCESS LIST IS APPLIED IN INGRESS. |
| word | VLAN RANGE TABLE |
| add | ADD VLAN RANGE TABLE |
| remove | DELETE VLAN RANGE TABLE |

Default Value

No MAC access list is applied to an interface.

Command Mode

Global configuration mode, interface configuration mode

Usage Guidelines

This command is configured in PON interface or the uplink interface configuration mode or the interface configuration mode. If there is no access list, an access list with the empty rule will be created.

Example

The following example shows how to configure the macacl MAC access list on interface gpon0/1.

Switch_config# interface gp0/1

Switch_config_gpon01# mac access-group macacl